

**ChemWhat Technical Data Sheet (TDS)**

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<b>Catalog Number:</b>	6A6-05
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 11.6 kDa, a single non-glycosylated polypeptide chain containing 103 amino acids.
<b>Quantity:</b>	100µg/500µg/1000µg
<b>AA Sequence:</b>	TPQNITDLCA EYHNTQIYTL NDKIFSITES LAGKREMAII TFKNGAIFQV EVPGSQHIDS QKKAIERMKD TLRIAYLTEA KVEKLCVWNN KTPHAIAAIS MAN
<b>Purity:</b>	> 98 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Data Not Available.
<b>Physical Appearance:</b>	Sterile colorless liquid.
<b>Formulation:</b>	Supplied as a 0.2 µm filtered solution in 5 mM PB, pH 7.0, 75 mM NaCl, with 50 % glycerol.
<b>Endotoxin:</b>	Less than 0.1 EU/µg of rCTB as determined by LAL method.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 6 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 3 months, -20 to -70 °C under sterile conditions after opening.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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***Cholera Toxin B subunit***

Cholera toxin (also known as cholera toxin and sometimes abbreviated to CTX, Ctx or CT) is a protein complex secreted by the bacterium *Vibrio cholerae*. CTX is responsible for the massive, watery diarrhea characteristic of cholera infection. The cholera toxin is an oligomeric complex made up of six protein subunits: a single copy of the A subunit (part A, enzymatic), and five copies of the B subunit (part B, receptor binding), denoted as AB<sub>5</sub>. Subunit B binds while subunit A activates the G protein which activates adenylate cyclase. The five B subunits - each weighing 11 kDa, form a five-membered ring. The A subunit which is 28 kDa, has two important segments. The A1 portion of the chain (CTA1) is a globular enzyme payload that ADP-ribosylates G proteins, while the A2 chain (CTA2) forms an extended alpha helix which sits snugly in the central pore of the B subunit ring. This structure is similar in shape, mechanism, and sequence to the heat-labile enterotoxin secreted by some strains of the *Escherichia coli* bacterium.